

IN THE ABSTRACT:

Please delete the Abstract from the Specification and replace it with the following.

In order to transform an input digital signal ( $x_n$ ) into one or more output digital signals ( $y_n$ ) containing even-indexed samples ( $y_{2n}$ ) and odd-indexed samples ( $y_{2i+n}$ ), this filtering method includes at least one iteration which contains an operation of modifying even-indexed samples ( $y_{2n}$ ) by a function (R) of weighted odd-indexed samples ( $y_{2n+1}$ ), and an operation of modifying odd-indexed samples ( $y_{2n+1}$ ) by a function (R) of weighted even-indexed samples ( $\beta_{0,j} \cdot (y_{2n} - y_{2n+2})$ ). The weighted samples are obtained by at least one weighting operation. At least one of the weighting operations is applied to the difference between two consecutive even-indexed samples.